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Procedia - Social and Behavioral Sciences 57 (2012) 209 – 214

**Procedia**  
Social and Behavioral SciencesInternational Conference on Asia Pacific Business Innovation and  
Technology Management

## Integrated Knowledge Management Strategy: A Preliminary Literature Review

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### Abstract

The significance of retail industry could be shown from its percentage contribution to the Malaysian GDP. A proper deployment of KM had been found to improve financial competitiveness, operational efficiency and increased market share. It is in this context, that this paper is set with a purpose to identify an effective KM strategy for the Malaysian modern retail chains. The paper reveals two types of KM's strategies commonly practiced in organizations namely: codification and personalisation strategies. The IT is proposed as a platform to integrate both strategies.

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**Keywords:** Knowledge Management, Knowledge Management Strategy, Codification Strategy, Personalization Strategy, Integrated knowledge management strategy.

### 1. Introduction

The dynamic of market forces driven by information technology has compelled many organizations to transform from the production concept to value creation concept, through the utilisation of intangible knowledge economy [1]. In particular, the high volume of retail transactions had forced this industry to leverage on internet-based technology and to share best business practices in order to remain competitive [2]. Many studies found that the proper deployment of strategy can improve financial competitiveness, efficiency of operation, and increased market share in many organisations at different industry [2-4]. The necessity to develop a suitable strategy in knowledge sharing is therefore critical for retailers [5].

Likewise, it is essential for the Malaysia retail organisations to select an appropriate KM strategy, if and when applied could drive the organisations to attain superior business performance and strengthen the competitive advantage in the marketplace. Retail industry is one of the major pillars of the Malaysian economy as it contributed approximately 18% (US\$50.64b) of the overall Malaysian GDP (US\$274.22b) in 2011[6]. The report also projected that the total Malaysian retail sales will grow to US\$77.43b by 2015.

This paper aims to identify an effective KM strategy for the Malaysian modern retail chains. The literature on KM strategy was first reviewed, followed by the discussion on the definitions and

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concepts of KM as well as the various KM strategic options. In the final section, an integrated approach to KM strategy is proposed.

#### **Nomenclature**

KM	Knowledge Management
GDP	Gross Domestic Product
IT	Information Technology
ICT	Information and Communication Technology

## **2. Definition of Knowledge Management**

Drucker described knowledge is a source of wealth. In his opinion, productivity level would have increased when the workers apply knowledge to tasks they are familiar with, and the term innovation is used when the workers apply knowledge to tasks that are new and different [7]. However, the term KM is said to be new and that there are only few successful models from which they could be applied in the modern retail industry.

Below are the definitions of KM from various researchers:

- KM is the practice of selectively applying knowledge from previous experiences of decision making to current and future decision making activities with the express purpose of improving organizational effectiveness [8].
- KM is defined as a systematic, goal oriented application of measurement to the tangible and intangible knowledge assets of the company, with the aim of using the knowledge of the firms to enable the creation of new knowledge that can generate value for an organization [9].
- KM can be defined as the process for acquiring, storing, diffusing and implementing both tacit and explicit knowledge inside and outside the organization's boundaries with the purpose of achieving corporate objectives in the most efficient manner [10].

Based on the definition above, KM can be defined as a process of managing tacit and explicit knowledge in the organization in order to increase the competitive advantages [11].

## **2. Knowledge Management Strategy**

In the knowledge age of today, KM strategy is one of the best approaches to drive business performance and fortify the competitive advantage of the company. Nevertheless, the adoption and implementation of KM strategy in practice is not so straight forward due to many different internal and external factors to the company. On the other hand, selecting the appropriate KM strategy is significant to its implementation [12]. Hansen et al. [13] identified two different knowledge management strategies practiced at management consulting firms, namely codification strategy and personalization strategy.

### **2.1 Codification Strategy**

Codification strategy is a "people-to-documents" approach that involves securing explicit knowledge in the form of databases for others to access and re use [13]. Codification can be a good mechanism to store large amounts of organizational memory [14]. This approach enables all authorized employees to retrieve the codified knowledge and share their expertise via electronic devices. Through this means, the codified knowledge is acquired, re-uses, saved, refined and improved which ultimately forms to be an organizational innovation.

Hansen et al. [13] illustrated an example from one of the Ernst & Young consultants who had some experience of implementing information systems for several manufacturers except for a large industrial manufacturer which the company had to prepare but knew other Ernst & Young teams who had this kind of project experience. By making use of the electronic knowledge management storage system, the consultants re used the previous knowledge which had resulted Ernst & Young to secure the

bidding. The sale was closed in just two months, instead of the typical four to six months. Additionally, the consultant also fortified the contents in the electronic storage system by adding some new knowledge and experience learned from that project for reference by other users.

The codification strategy also posits the economies of re-use which is closely related to exploitative learning. In this way, codified knowledge refines the existing capabilities and technologies forcing through standardisation and routinisation [15]. Likewise, Zanjani et al. [16] suggested that “Codification strategy is more suitable for SMEs conducting tasks that are more routine in nature”.

In short, the codification strategy is presumed to be effective for companies whose business strategy requires re-using of existing knowledge [17], i.e. functional consultancy, manufacturing, franchising and business process outsourcing.

## 2.2 *Personalisation Strategy*

By contrast, the personalisation strategy is based on a “person-to-person” approach and delivers customized services often practiced by organizations that prove highly customized solutions to unique problem. This strategy focuses on discussion between individuals and not the knowledge objects in a database.

Hansen et al. [13] have shown another example, a consultant in Bain's London office had provided the solution for a complicated strategy problem for a large British financial institution. The customer wanted Bain Consulting Group to help it expands by offering new products and services. This project required diverse expertise and broad understanding of the industry as well as numerous creative thinking. Voice mail messages were left by consultant in charge to several associates with relevant expertise in the area. More contacts could also be checked in Bain's “people finder” database. Eventually the consultant in charge contacted nine partners from which the on-going advisers to the project were selected. During the four months the team consulted others expert partners through regular meetings, phone calls and e-mails. In the process of developing a unique growth strategy, the team tapped into a worldwide network of colleagues' experience. To make their personalisation strategies work, Bain had invested heavily in building networks of people worldwide.

In brief, organisations that are using personalisation strategy emphasis on ‘economies of expertise’ and developing highly customised solutions to complex problems, thereby using person-to-person contact and personal interaction to solve problems [17], i.e. technical consultancy, research and development centre, creative and design centre. In view of that Zanjani et al. [16] recommended that “personalisation strategy is more suitable for SMEs conducting tasks that are more innovative in nature”.

## 2.3 *Integrated Strategy*

Percin [18] suggested another new KM strategy as dynamic KM strategy which integrates the conceptual scope of system and human-oriented KM strategies. Sarawanawong et al. [19] proposed a ‘hybrid KM framework development strategy’ in higher education. This personalisation strategy/human oriented style (or people-to-people) plays a leading role while the codification (or people-to-document) plays the supporting roles. The former strategy includes knowledge identification, knowledge creation and knowledge acquisition involving appropriate use of ICT enabling tools; while the codification strategy includes knowledge storage, knowledge organization, knowledge distribution, and knowledge application.

Lately, Choe [20] forwarded a KM strategy as integrated approach, combining both personalisation and codification strategies as mixed KM strategy. Under this KM strategy, the balancing of the exploitation and exploration are well achieved and maintained [17]. However, Hansen et al. [13] found that most companies which had used knowledge effectively pursue one predominant (80%) strategy and use the second strategy (20%) to support the first.

It could be summarised that since many companies did not try to use both approaches to an equal degree, it showed that the imbalance in utilizing two kinds of knowledge required both of tacit and explicit knowledge [12]. Can both kinds of knowledge be supported equally at the same time? This can be done only if there is a suitable technology which can support both kinds of knowledge.

On the other hand, Mathiassen and Pourkomeylian [21] while evaluating the current KM practices and in improving its software process improvement (SPI) practices employed both codified and personalized approaches to KM. They found that each software organization has to find its own balance for the two KM strategies to be dynamically adjusted as the organization matures. They also

suggest that the adopted KM approach should differentiate between different types of SPI services and in using a suitable platform for KM, both KM strategies can be followed at the same time.

Later, Pham and Hara [12] combined two KM strategies, supported by web 2.0 to facilitate the knowledge creating cycle within the enterprise. An open environment for integration could be used for many purposes, such as problem solving, decision making, social networking and knowledge exploring. This combination of strategies ensures the effectiveness of KM strategy and improves the performance of an enterprise[24].

3. Discussion

The KM strategies seemed to suggest two different focuses: the codification strategy mainly concentrates on the content management system while the personalization strategy pays much attention on human interaction. The two strategies however shared a common goal; which is fostering creativity and innovation within organizations. If the organizations lean too much towards human factors, the new ideas may bubble up and evaporate due to lack of strategy and mechanism to harness them. Conversely, if the organizations emphasized too much on strategy and management system, the creativity might be restrained by the strategic directions or policies.

As such, the balancing act is mandatory on both human factors and management system to attain successful organizational innovation. If one were to take an example from the prescribed Confucius teaching; the universe is run by a single principle, the Tao [22]. Tao is divided into two opposite principles (oppose one another in their actions) the Yin and the Yang. All the opposites one perceives in the universe can be reduced to one of the opposite forces. Yin is the principle of completion (also signifies soft elements) and Yang is the principle of initiation (also signifies hard elements), they are the beginning and end of everything in nature. People usually get into trouble when they forget that yang and yin go together and need each other, and dualistically lock ourselves into either side of a polarity. In other word, Yin and Yang are harmonizing each other rather than confronting each other.

Analogically, if Tao stand for KM strategy here, then Yin can be represented by personalisation strategy as its attributes consist of soft elements in nature and Yang means codification strategy as its characteristics comprises hard elements by large as shown in Table 1.

Table 1 The Attributes of Personalisation Strategy (Yin) and Codification Strategy (Yang)	
Personalisation Strategy Yin (Soft Elements)	Codification Strategy Yang (Hard Elements)
<ul style="list-style-type: none"><li>• Person-to-person</li><li>• Implicit Knowledge</li><li>• Explorative</li><li>• Customisation</li><li>• Creative</li></ul>	<ul style="list-style-type: none"><li>• People-to-document</li><li>• Explicit Knowledge</li><li>• Exploitative</li><li>• Standardisation</li><li>• Innovative</li></ul>

Fig. 1 further illustrated the connection between personalisation strategy and codification strategy into a concept of integrated KM strategy.



Fig. 1: Illustration of An Integrated KM Strategy Model

Looking at the modern retail chains, the management system is the engine of growth as the retailers depend on it to standardise and codify the products and services as well as cut cost to maintain the satisfactory customer service level. As a result, modern retail chains have been adopting new ICT technologies to improve their management systems over the years [23]. Nevertheless, management system itself has its own limitations, especially in fast changing retail industry. It is not flexible in solving complex problems and not proficient enough in responding to the emergency cases and events in real time. In any case however human factors cannot be disregarded by the retailers.

#### 4. Conclusion

From the above literature review and discussion, it could be concluded that the integrated KM strategy seems to be most appropriate, if it were to be adopted by the modern retail organisations. In this context, it is proposed that the integrated KM strategy is most appropriate for the Malaysian modern retail chains. The approach integrates both the codification and personalisation strategies and uses ICT technologies as a platform to ensure the effectiveness of KM implementation as a well as improve the performance of the retail chains. Further empirical research in a form of survey research for retail chains and multivariate analysis could be used to validate the findings.

#### Acknowledgements

This research was financially supported by the Razak School Research Grant (Vot No. 4b036) from Razak School of Engineering and Advanced Technology, Universiti Teknologi Malaysia and Ministry of Higher Education.

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